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Γ	APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
	09/759,287	01/11/2001	Raul G. Barletta	UNL 2999.01	9782
	321	7590 12/12/2002			
	SENNIGER POWERS LEAVITT AND ROEDEL			EXAMINER	
	ONE METROPOLITAN SQUARE		: .	SWARTZ, RODNEY P	
	16TH FLOOR ST LOUIS, MO		•	·	
	51 20015, 1410	05102		ART UNIT	PAPER NUMBER
	•			1645	_
				DATE MAILED: 12/12/2002	13.

Please find below and/or attached an Office communication concerning this application or proceeding.

	<i>J.</i>					
:	Application No.	Applicant(s)				
	09/759,287	BARLETTA ET AL.				
Office Action Summary	Examiner	Art Unit				
	Rodney P. Swartz, Ph.D.	1645				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status						
1) Responsive to communication(s) filed on 10S	eptember2002 .	•				
2a)⊠ This action is <b>FINAL</b> . 2b)□ Th	is action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims						
4)⊠ Claim(s) <u>1-53</u> is/are pending in the application.						
4a) Of the above claim(s) 1-14 and 43-53 is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>15-42</u> is/are rejected.						
. 7) Claim(s) is/are objected to.						
8) Claim(s) 1-53 are subject to restriction and/or election requirement.						
Application Papers						
9)☐ The specification is objected to by the Examiner.						
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
11)☐ The proposed drawing correction filed on is: a)☐ approved b)☐ disapproved by the Examiner.						
If approved, corrected drawings are required in reply to this Office action.						
12) The oath or declaration is objected to by the Ex	aminer.					
Priority under 35 U.S.C. §§ 119 and 120						
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) All b) Some * c) None of:		·				
1. Certified copies of the priority document		and an Ma				
2. Certified copies of the priority document						
<ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>						
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).						
a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.						
Attachment(s)						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of Infon	mary (PTO-413) Paper No(s) mal Patent Application (PTO-152)				

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## **DETAILED ACTION**

- 1. Applicants' Response to Office Action, received 10September2002, paper#10, is acknowledged. Claim 23 has been amended.
- 2. Claims 1-53 are pending. Claims 1-14 and 43-53 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention (see Office Action, mailed 17April2002, paper#9).
- 3. Claims 15-42 are under consideration.

# Rejections/Objections Withdrawn

- 4. The objection to Figure 2 under M.P.E.P. §2422.02, third paragraph, for no sequence identifier, is withdrawn in light of the amendment.
- 5. The rejection of claim 23 under 35 U.S.C. 112, second paragraph, as being indefinite for "between", is withdrawn in light of the amendment of the claim.

# Rejections Maintained

6. The rejection of claims 15-42 under 35 U.S.C. 112, first paragraph, scope of enablement for vaccines, is maintained.

Applicants argue that the one example of a mutated bacteria, i.e., *M. paratuberculosis*, along with the guidance provided in the instant specification is sufficient to enable one skilled in the art to which it pertains to make and use the invention commensurate in scope with the claims. The instant specification provides guidance on what mutation techniques to use in order to insert mutations into the genome of bacteria in general. Likewise, the specification provides guidance

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to selecting mutations involved in virulence in bacteria, and on testing said mutated bacteria for virulence. Thus, it would be routine for one skilled in the art to produce such mutated bacteria as are claimed in the instant application.

The examiner has considered applicants' argument, but does not find it persuasive. The instant claims are drawn to a vaccine composition, i.e., a composition which immunizes an animal against bacterial infection. As stated in the original rejection, the instant specification provides no such examples of vaccination/immunization for protection. The only example put forth in the instant specification is a virulence test, i.e., whether the mutated *M. paratuberculosis* survives in Beige mice in the same amount as wild type *M. paratuberculosis*. The instant specification does not teach or provide sufficient guidance to indicate which mutation(s) may provide protection in mice against *M. paratuberculosis*, nor for any/all other bacteria.

### Conclusion

- 7. Claims 15-42 remain rejected.
- 8. This application contains claims 1-14 and 43-53 drawn to a nonelected invention. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.
- 9. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney P. Swartz, Ph.D., whose telephone number is (703) 308-4244. The examiner can normally be reached on Monday through Thursday from 5:30 AM to 4:00 PM EST.

If attempts to reach the Examiner by telephone are unsuccessful, the examiner's supervisor, Lynette F. Smith, can be reached on (703)308-3909. The facsimile telephone number for the Art Unit Group is (703)308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703)308-0196.

DONEY P SWARTZ, PH.D.

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December 11, 2002